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The objective of the proposed research is to compare the production of melatonin by young children with autism (N=45) to typically developing children (N=45). Specifically, we will see if the nighttime excretion rate of melatonin sulfate is markedly lower in the children with autism, whether there is a subgroup of children with autism having very low excretion; whether low nighttime excretion of melatonin sulfate is associated with sleep problems; and whether low daytime melatonin sulfate excretion is associated with gastrointestinal problems.

## **Body**

In Year-3 we recruited N=20 autism subjects and N=44 typically developing subjects. We have now recruited a total of N=31 autism subjects and N=56 typically developing subjects. All samples collected as of 09-30-2013 have been extracted.

## (4) Section III - Problem Areas

## (a) Current problems:

Recruitment rates have improved and the recruitment target of N=45 typically developing subjects has been surpassed. However, we have submitted a request for an Extension Without Funds for the period 10-01-2013 through 09-30-2014 in order to meet the original target recruitment goal of N=45 autism subjects (14 autism subjects still needed).

(b) Anticipated problems and corrective action planned:

Given the ongoing studies of the Child Study Center, including a DoD-funded study of Dr. K. Chawarska, we expect to achieve the recruitment goal of N=45 autism subjects by or before 06-01-2014.

**Key Research Accomplishments:** Recruitment has improved, and the target sample numbers should be reached by June 2014. Data analysis will proceed at that time.

**Reportable Outcomes:** A total of N=31 autism subjects and N=56 typically developing subjects have been recruited.

**Conclusions:** We expect the improved recruitment rates experienced in the past year to continue through June, 2014.

**References:** None

**Appendices:** None